



Atty. Dkt. No. 076333-0281

## REMARKS

### INTRODUCTION

Receipt is acknowledged of the Office Action of November 5, 2002. Applicants appreciate the indication by the Examiner that claims 44, 57, 58, 63, 64, 84, 106, 11, 113, 114 and 117 were allowable over the prior art for the elected species, and that claims 59, 65-76 and 118-124 are allowable over the prior art for the elected species and the expanded species. Claims 44-77 have been canceled without prejudice or disclaimer. The cancellation of claims does not reflect an acquiescence in the propriety of any rejection or objection set forth by the Examiner. Claim 90 has been amended to reflect the carbon containing substituents which can be radiolabeled.

Upon entry of the amendment, claims 78-130 will be pending.

### THE OFFICE ACTION

#### *Restriction/Election*

The Examiner previously required an election of species and later deemed allowable the claims that she examined with respect to the species elected by Applicants. According to MPEP § 803.02, a post-election determination of allowability requires the examiner to consider a "reasonable number" of additional species within the claim. Specifically, Section 803.02 states:

On the other hand, should no prior art be found that anticipates or renders obvious the elected species, the search of the Markus-type claim will be extended. If prior art is then found which anticipates or renders obvious the Markush-type claim with respect to ***a non-elected species***, the Markush-type claim shall be rejected and claims to the non-elected species held withdrawn from further consideration. The prior art search, however, will not be extended unnecessarily to cover all non-elected species.

(Emphasis in original.) The highlighted text indicates that the "non-elected species" found in the prior art is one disclosed by Applicants. Further support for search and examination of species Applicants disclose rather than a species of the Examiner's deriving is

found in MPEP 809.02 (b) which states (in Form Paragraph 8.48), "Applicant is entitled to consideration of claims to *a reasonable number of disclosed species* in addition to the elected species provided all the claims to each additional species are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141." (Emphasis added). The context of this statement is in relation to an allowable genus claim. Generic claim 44 has been rejected as anticipated by the cited prior art and has been canceled in this response. Elected claims 81 and 84, also rejected and generic to the elected species and allowable as limited to the elected species, have been improperly rejected, see argument below.

By contrast, the examiner considered the elected species, recited in a single dependent claim, and then chose a species enumerated nowhere in the specification or claims. In other words, the examiner chose from among various substituents recited in Applicants' genus claims, thereby to derive a species, allegedly taught in the prior art, that some of the claims read upon. b

To that end, the Examiner has withdrawn a number of claims as directed to a non-elected species. It is requested that the Examiner reconsider the withdrawn claims and expand the prior art search and examination to include species set forth in the present claims. Additionally, inclusion and examination of the radiolabeled derivatives as set forth in claim 90 are respectfully requested. It is Applicants position that search and examination of radiolabeled derivatives would not constitute an undue burden on the Examiner and as such, examination of claim 90 and claims dependent thereon are respectfully requested. c

***Rejections based on 35 U.S.C. § 102(b)***

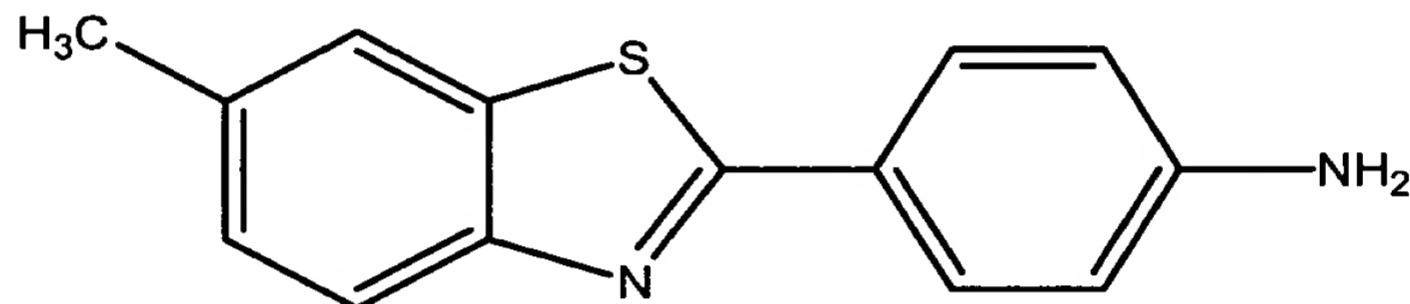
The Examiner has rejected claims 44, 63, 64, 81 and 117 under 35 U.S.C. § 102(b) as allegedly anticipated by Vitek *et al.* (U.S. Patent No. 5,935,927). Applicants respectfully traverse.

As an initial observation, the Examiner notes that the search has been expanded to compounds of Structure D where Y is NR<sub>1</sub>R<sub>2</sub>, R<sub>1</sub> and R<sub>2</sub> are H, R<sub>3</sub>-R<sub>6</sub> are H, Z is S, R<sub>7</sub>, R<sub>8</sub> and R<sub>10</sub> are H and R<sub>9</sub> is CH<sub>3</sub> and cites to Vitek and Scheler for disclosing a compound

corresponding to this species. However, the compound disclosed by Vitek and Scheler is 2-(4-aminophenyl)-6-methyl-benzothiazole which corresponds to a Structure D compound where Y is NR<sub>1</sub>R<sub>2</sub>, R<sub>1</sub> and R<sub>2</sub> are H, R<sub>3</sub>-R<sub>6</sub> are H, Z is S, R<sub>7</sub>, R<sub>9</sub> and R<sub>10</sub> are H and R<sub>8</sub> is CH<sub>3</sub>.

At the outset, claims 44, 63 and 64 have been canceled without prejudice or disclaimer. This cancellation of claims does not constitute acquiescence in the propriety of any rejection or objection set forth by the Examiner. The cancellation merely is made to advance prosecution and clarify the outstanding issues.

With respect to the rejection of claim 81 and 117, the Examiner states that Vitek anticipates the claims because of the disclosure of a compound having the following formula:

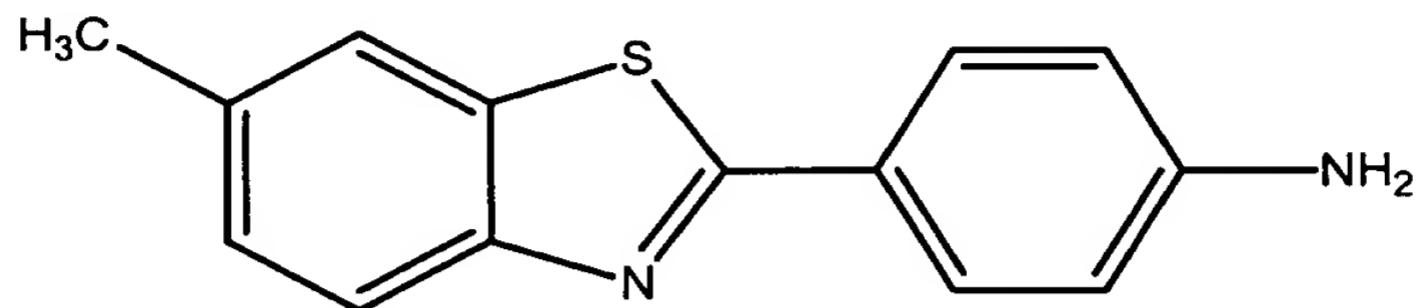


The compound depicted above of Vitek requires that the position corresponding to R<sub>8</sub> of the formula found in claim 81 is methyl. The Examiner's attention is directed to the definition of R<sub>8</sub> of claim 81. R<sub>8</sub> is defined as being "selected from the group consisting of H, F, Cl, Br, I, ethyl, propyl, butyl, (CH<sub>2</sub>)<sub>n</sub>OR' (wherein n=1, 2, or 3), CF<sub>3</sub>, CH<sub>2</sub>-CH<sub>2</sub>X, O-CH<sub>2</sub>-CH<sub>2</sub>X, CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>X, O-CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>X (wherein X=F, Cl, Br or I), CN, (C=O)-R', N(R')<sub>2</sub>, NO<sub>2</sub>, (C=O)N(R')<sub>2</sub>, O(CO)R', OC<sub>2</sub>H<sub>5</sub>, OC<sub>3</sub>H<sub>7</sub>, OC<sub>4</sub>H<sub>9</sub>, SR', COOR', R<sub>ph</sub>, CR'=CR'-R<sub>ph</sub>, CR<sub>2</sub>'-CR<sub>2</sub>'-R<sub>ph</sub> (wherein R' is H or a lower alkyl group and R<sub>ph</sub> represents an optionally substituted phenyl group), a tri-alkyl tin and a chelating group (with or without a chelated metal group) of the form W-L or V-W-L, wherein V is selected from the group consisting of. . . ." There is no provision for R<sub>8</sub> to be methyl group. Hence, claim 81 is not anticipated by Vitek and claim 117, as being dependent upon claim 81 (and understood to be readable so far as the elected and expanded species are concerned), would also not be anticipated by Vitek. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

The Examiner has rejected claims 81 and 117 under 35 U.S.C. § 102(b) as allegedly

anticipated by Scheler et al. (U.S. Patent No. 4,540,648). Applicants respectfully traverse.

With respect to the rejection of claim 81, the Examiner states that Scheler anticipates the claims because of the disclosure of a compound having the following formula:



The compound depicted above of Scheler requires that the position corresponding to R<sub>8</sub> of the formula found in claim 81 is methyl. The Examiner's attention is directed to the definition of R<sub>8</sub> of claim 81. R<sub>8</sub> is defined as being "selected from the group consisting of H, F, Cl, Br, I, ethyl, propyl, butyl, (CH<sub>2</sub>)<sub>n</sub>OR' (wherein n=1, 2, or 3), CF<sub>3</sub>, CH<sub>2</sub>-CH<sub>2</sub>X, O-CH<sub>2</sub>-CH<sub>2</sub>X, CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>X, O-CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>X (wherein X=F, Cl, Br or I), CN, (C=O)-R', N(R')<sub>2</sub>, NO<sub>2</sub>, (C=O)N(R')<sub>2</sub>, O(CO)R', OC<sub>2</sub>H<sub>5</sub>, OC<sub>3</sub>H<sub>7</sub>, OC<sub>4</sub>H<sub>9</sub>, SR', COOR', R<sub>ph</sub>, CR'=CR'-R<sub>ph</sub>, CR<sub>2</sub>'-CR<sub>2</sub>'-R<sub>ph</sub> (wherein R' is H or a lower alkyl group and R<sub>ph</sub> represents an optionally substituted phenyl group), a tri-alkyl tin and a chelating group (with or without a chelated metal group) of the form W-L or V-W-L, wherein V is selected from the group consisting of. . . ." There is no provision for R<sub>8</sub> to be methyl group. Hence, claim 81 is not anticipated by Scheler. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

**CONCLUSION**

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested. The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Respectfully submitted,

Date March 5, 2003

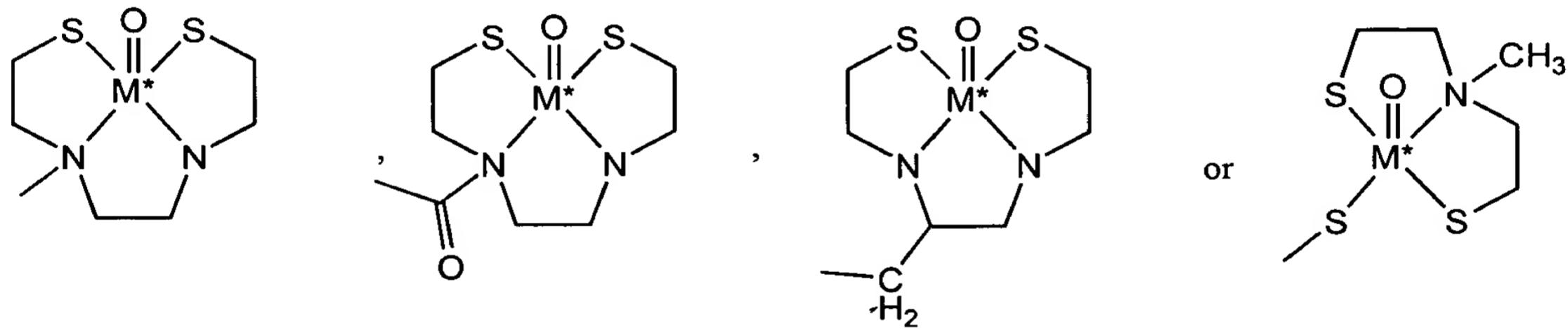
By Mary C. Till

Mary C. Till  
Attorney for Applicants  
Reg. No. 41,545

FOLEY & LARDNER  
Washington Harbour  
3000 K Street, N.W., Suite 500  
Washington, D.C. 20007-5143  
Telephone: (202) 672-5554  
Facsimile: (202) 672-5399

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

90. (Amended) The compound of any of claim 78-88, wherein at least one of the substituents R<sup>1</sup>-R<sup>10</sup> is selected from the group consisting of <sup>3</sup>H, <sup>131</sup>I, <sup>125</sup>I, <sup>123</sup>I, <sup>76</sup>Br, <sup>75</sup>Br, <sup>18</sup>F, CH<sub>2</sub>-CH<sub>2</sub>-X\*, O-CH<sub>2</sub>-CH<sub>2</sub>-X\*, CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>-X\*, O-CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>-X\* (wherein X\* = <sup>131</sup>I, <sup>123</sup>I, <sup>76</sup>Br, <sup>75</sup>Br or <sup>18</sup>F), <sup>19</sup>F, <sup>125</sup>I, a carbon-containing substituent selected from the group consisting of lower alkyl, (CH<sub>2</sub>)<sub>n</sub>OR', CF<sub>3</sub>, CH<sub>2</sub>-CH<sub>2</sub>X, O-CH<sub>2</sub>-CH<sub>2</sub>X, CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>X, O-CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>X (wherein X=F, Cl, Br or I), CN, (C=O)-R', (C=O)N(R')<sub>2</sub>, O(CO)R', COOR', CR'=CR'-R<sub>ph</sub> and CR<sub>2</sub>'-CR<sub>2</sub>'-R<sub>ph</sub> [as specified in claim 78 or 79] wherein at least one carbon is <sup>11</sup>C, <sup>13</sup>C or <sup>14</sup>C and a chelating group (with chelated metal group) of the form W-L\* or V-W-L\*, wherein V is selected from the group consisting of -COO-, -CO-, -CH<sub>2</sub>O- and -CH<sub>2</sub>NH-; W is -(CH<sub>2</sub>)<sub>n</sub> where n=0,1,2,3,4, or 5; and L\* is:



wherein M\* is <sup>99m</sup>Tc.